THE REDISCOVERY OF OREOHELIX HAYDENI (GABB)

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In 1869 William M. Gabb described the interesting species *Oreohelix haydeni* from Webber Canyon, Utah. This is now called Weber Canyon, a canyon approximately forty miles in length, between South Ogden, Utah, and continuing east to beyond Echo, Utah. There are many tributary canyons in Weber Canyon, and the type locality of *Oreohelix haydeni* has not hitherto been rediscovered.

Miss Betty Knight, a student of botany in the University of Utah, presented the author with a few shells of *O. haydeni* which she had collected near Devil Slide, Weber Canyon, during the early fall of 1929. In the spring of 1930 the writer organized a small party to search for the living specimens. They were discovered after a little difficulty living in Dry Creek Canyon, the first tributary canyon south of the cement plant, at Devil Slide, Utah, under the dead leaves of *Amelanchier alnifolia* Nutt., near the base of the shrub. The entire region surrounding the cement plant is covered by a thick coat of cement dust making the environment anything but favorable for mollusca. The species is very localized in this one tributary canyon. Adjacent tributaries and the mountain sides across from the Weber River yielded several varieties of *haydeni*, e.g., *hybrida* (Hemphill) and *gabbiana* (Hemph.), but the typical forms were found only in this one small tributary as noted above. Figured on Plate 3.

From the specimens collected it is recognized that the species is exceedingly variable, ranging from high spired forms to very flat, depressed forms. Each specimen, however, possesses the sharp prominent spiral ribs both above and below the periphery with a distinct channel below each rib. Occasionally riblets are present in the channels. The color of the shells of the living specimens is a dull ashy-gray. The dead shells are chalky white. Comparative measurements from a dozen mature specimens follow; also the number of spiral ribs on the last whorl. Additional threads when present are added in parenthesis.

Diam.	Height	Whorls	Ribs above, incl. periphery	Below	Total
17.7 mm.	11.6 mm.	5	4(+2)	5	9
19.0	12.0	5¼	3(+2)	5	8
19.5	11.2	5	4	5	9
19.8	12.9	5	4	9	13
20.1	13.4	5	5(+1)	7	12
20.2	13.2	5	4	6(+2)	10
20.3	11.4	5	5	5	10
20.8	10.5	5	4	6	10
20.9	13.3	5	4	6(+1)	10
21.0	13.4	5	3(+1)	5(+1)	8
21.1	12.6	5½	3(+1)	5(+1)	8
22.3	16.5	6	5	5	10

It is noted that there are 2¼ nuclear whorls. The first whorl is finely striated but spiral riblets do not appear until the second whorl. There are two riblets above the periphery, one forming the carina and from four to five below the periphery. The average size is: diameter, 3.6 mm.; altitude, 2 mm.

Two varieties which are the closest allied to the type species are *Oreohelix haydeni oquirrhensis* (Hemphill) and *Oreohelix haydeni corrugata* Henderson and Daniels. *Oquirrhensis* is approximately the same size as the true *haydeni*. The peripheral keel, however, is more pronounced on the variety and the ribs are not as strong as on the typical specimens of *haydeni*. At times the spiral sculpture is reduced to riblets on the variety *oquirrhensis*. This has never been observed on the several hundreds of specimens collected of true *haydeni*. *Oreohelix haydeni corrugata* Henderson and Daniels, differs from typical *haydeni* in being a higher spired, a more globose form and averaging more spiral ribs which are not as sharp as those of the *haydeni*. The umbilicus of *corrugata* is narrower and the channels between the sutures are not as deep but are occupied by more spiral riblets than in the true *haydeni*.

The genus *Oreohelix* is one of the most difficult to classify in the Rocky Mountain Region because of the wide variation of its species. At the present time the author is comparing

the morphology of *Oreohelix haydeni* with that of its many varieties. His results will appear in a subsequent number of this periodical.

The author is under obligation to Dr. R. V. Chamberlin, under whose direction his studies on Utah mollusca have been pursued, and to Dr. Walter Cottam for making the photographs.

LAND SHELLS COLLECTED IN SOUTHWESTERN NORTH CAROLINA

BY WM. J. CLENCH AND GILBERT S. BANKS

(Concluded from page 18)

Blowing Springs, Cliff Ridge, Nantahala Gorge, Swain Co., North Carolina:

Polygyra tridentata Say
Polygyra rugeli Shuttl.
Polygyra normalis Pils.
Polygyra appressa perigrapta Pils.
Polygyra nantahala Cl. & Bks.
Polygyra wheatleyi Bld.
Polygyra voluminosa Cl. & Bks.
Polygyra magnifumosa Pils.
Polygyra pilula Pils.
Polygyra cincta Lewis
Omphalina andrewsae Pils.
Omphalina a. montivaga Pils.
Mesomphix laevigata latior Pils.
Vitrinizonites latissimus Lewis
Paravitrea andrewsi W. G. B.
Paravitrea placentula lacteodens Pils.
Paravitrea p. placentula Shuttl.
Retinella pentadelphia Pils.
Retinella sculptilis Bld.
Zonitoides arboreus Say
Ventridens elliotti Redf.
Ventridens acerra Lewis
Gastrodonta interna Say
Euconulus chersinus Say
Anguispira alternata Say
Discus patula Desh.
Haplotrema concavum Say
Strobilops aenea Pils.
Gastrocopta contracta Say